2010 Water Quality Report — Columbia County Water Utility

This report includes information collected from January 1, 2010 through December 31, 2010

LEAD WARNING FOR COLUMBIA COUNTY

Through a joint effort with homeowners in 2010, Columbia County Water Utility has found elevated levels of lead in some homes built prior to 1988.

If present, elevated levels of lead can cause serious health problems. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than that at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated levels of lead in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791) or at http://www.epa.gov/safewater/lead . Since 1992 Columbia County has conducted a corrosion control program and is currently conducting studies to help reduce lead levels in our customers' homes.

WATER REPORT

Columbia County Water Utility is constantly "Testing the Water." After testing our drinking water over 180,000 times in 2010, we are proud to announce to our customers that we have met or exceeded all United States Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) standards.

Topics covered in this report include source water information, numerical values of detected finished water quality parameters, term definitions, and health facts.

SOURCE WATER ASSESSMENT

Columbia County Water Utility completed a Source Water Assessment study in April 2002. This assessment identifies potential pollutant sources that could contaminate the water supply. In the ranking of High, Medium, and Low for potential pollutants, our water supply was ranked Low at both the Jim Blanchard Sr. Water Treatment Plant and the Clarks Hill Water Treatment Plant. This assessment is available to the public. If you would like to review or purchase a copy, please call (706) 863-6928 during normal business hours.

WATER SOURCES

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

HEALTH FACTS

For health reasons, the EPA has prescribed regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons - such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants - can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in source water include the following:

- ❑ Microbial contaminants (e.g., viruses and bacteria) that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wild-life;
- ❑ Inorganic contaminants (e.g., salts and metals) which can be naturally occurring or result from urban storm run-off, industrial or domestic waste discharges, oil and gas production, mining, or farming;
- ❑ Pesticides and herbicides which may come from a variety of sources such as agriculture, urban stormwater run-off, and residential uses;
- ❑ Organic chemical contaminants including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater run-off, and septic systems; and
- ❑ Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

COLUMBIA COUNTY WATER SOURCES

Columbia County currently withdraws up to 31,000,000 gallons a day of surface water from the Savannah River to the Jim Blanchard Sr. Water Treatment Facility on Point Comfort Road. An additional 8,000,000 gallons of surface water could be withdrawn from the Clarks Hill Reservoir and treated at the Clarks Hill Water Treatment Facility on Highway 221. With its new expansion, the Jim Blanchard Sr. Treatment Plant will soon be able to withdraw up to 45 million gallons per day. This addition will give the County the ability to withdraw and treat a total of 53,000,000 gallons a day of potable water.

Columbia County Water Utility Quality Data for 2010

Regulated Inorganic Substances Detected in Treated Water Entering Distribution System

Substance (Units)	Maximum Level Allowed (MCL)	Maximum Level Goal (MCLG)	Average Detected in CCWU	Range Detected in CCWU	Sample Date	Did CCWU Meet Requirements	Major Sources and Health Effects in Drinking Water
Fluoride (ppm)	4	4	0.89	0.78 - 1.04	2010	Yes	Water additive which promotes strong teeth.
Nitrate (ppm)	10	10	0.23	0.20 - 0.26	2010	Yes	Runoff from fertilizer use; septic tank leachate.
Turbidity (ntu)	TT	n/a	**Maximum** = 0.20	n/a	2010	Yes	Soil runoff and erosion of riverbanks and shoreline.
	TT=percentage of		**Percent Below 0.3ntu**		2010		
Turbidity (percent)	samples < 0.3ntu	n/a	100%	n/a	2010	Yes	Soil runoff and erosion of riverbanks and shoreline.

Regulated Inorganic Substances Detected in Treated Water at Tap

Substance (Units)	Action Level Allowed (AL)	Maximum Level Goal (MCLG)	90th Percentile in CCWU	Number of sites above AL	Previous Sample Date	Did CCWU Meet Requirements	Lead in drinking water is mainly caused by corrosion of household plumbing; Erosion of natural deposits. Infants and Children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Copper (ppm)	1.3	1.3	0.14	0	2010	Yes	
Lead (ppb)	15	0	24.0	7	2010	No	

Regulated Organic Substances Detected in Treated Water at Tap

Substance (Units)	Max Yearly Average Allowed (MCL)	Maximum Level Goal (MCLG)	Max Quarterly Average Detected in CCWU	Annual Range Detected in CCWU	Sample Date	Did CCWU Meet Requirements	
Total Trihalomethanes (ppb)	80	n/a	58	26.3 - 82.8	2010	Yes	By-product of drinking water disinfection by chlorination.
Total Haloacetic Acids (ppb)	60	n/a	72	9.2 - 96.0	2010	Yes	By-product of drinking water disinfection by chlorination.
Substance (Units)	**Maximum Residual Level Allowed (MRDL)**	**Maximum Level Goal (MRDLG)**	**Yearly Average Detected in CCWU**	**Range Detected in CCWU**	**Sample Date**	**Did CCWU Meet Requirements**	
Chlorine (ppm)	4	4	1.2	0.2 - 2.0	2010	Yes	Water additive used to control microbes.
Total Organic Carbon (ppm)	TT	n/a	1.6	1.1 - 2.2	2010	Yes	Naturally present in the environment.

Regulated Bacteriological Sampling

Substance (Units)	Number of Required Samples Collected Per Month	Maximum Level Allowed (MCL)	Number of Violations	Highest Monthly Percent	Sample Date	Did CCWU Meet Requirements	Coliform bacteria, including ecoli, are naturally present in the environment. Fecal Coliform and E.coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symtoms. They may pose a special risk for infants, young children, some elderly, and people with compromized immunes systems.
Total Coliforms (P/A)	100	5.00%	0	2	2010	Yes	
E-Coli (P/A)	100	MCLG = 0	0	1	2010	Yes	

For Your Information

Substance	Range Detected in CCWU
Sodium	10ppm - 13ppm
Alkalinity	11ppm - 20ppm
Hardness	1 - 35ppm (Very Soft)
pH	6.5 - 8.5

Definitions

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): Maximum disinfectant residual allowed in the distribution system

Not Detected (nd): The amount of a material in a sample was not detected during analytical testing.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per Billion (ppb): One part per billion is equivalent to one penny in 10 million dollars.

Parts per Million (ppm): One part per million is equivalent to one penny in ten thousand dollars….. (1 ppm = 1 mg/L)

Please Call

For more information about the CCWU (ID # 0730000), please contact the Water Laboratory Manager Rodney Silvey at (706) 868-3460 or the Treatment Operations Manager John Maldonado at (706) 860-2587. The Public Works Committee meets the 4th Tuesday of each month at 8:00 AM at the Evans Government Center Auditorium in Building A on 630 Ronald Reagan Drive.

Trihalomethane (THM) and Haloacetic acids (HAA5) Study

In December 2005 the Environmental Protection Agency (EPA) promulgated the Stage 2 Disinfection Byproduct Rule (Stage 2 DBPR). This Rule required our water utility to perform a study on the byproducts produce by the use of chlorine as a disinfectant. The byproducts studied were Trihalomethanes and Haloacetic Acids. These byproducts, in high enough amounts over a period of time, are believed to raise risk of cancer, liver, kidney, and nerveous sytem problems.

From May 2008 through March 2009 Columbia County conducted a study using 16 sample sites that were chosen according to the EPA site requirements. Although there were a few spikes in some samples, there were no sample site averages that exceeded the Maximum Contamenant Levels (MCL). The MCL for THMs is 80 ppb and 60 ppb for HAA5.

During this study individual sample results ranged from 19 - 96 ppb for THMs and 7 - 105 ppb for HAA5s.